APPENDIX A

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State Of Nevada
Department of Human Resources
Nevada State Health Division
Radiological Health section
620 Belrose Street
Las Vegas, NV 89158
Attn.: Mr. Larry Franks

Subject: Radioactive Material Handling License

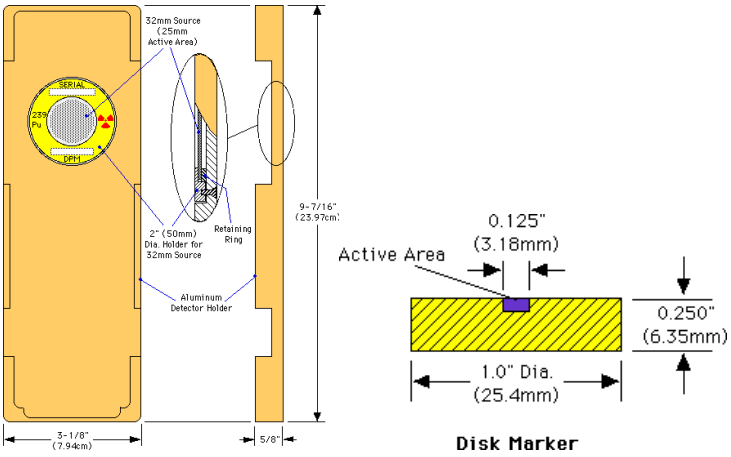
Dear Mr. Franks,

ESN (Environmental Strategies of Nevada Inc., d.b.a. Enviromedical Sources Nevada) will operate as a small laboratory based production facility. The primary business of ESN will be divided into the following categories:

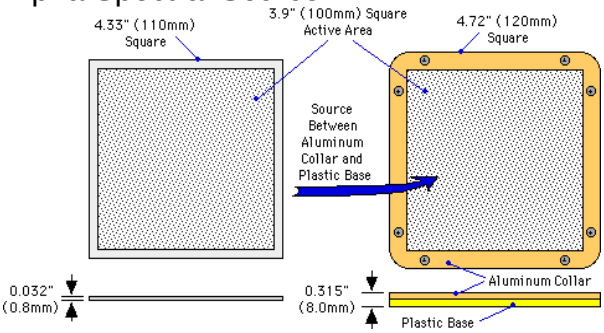
1) Reference source manufacturing
2) Instrument calibration services
3) On site services.

Sealed sources are used for instrument calibration, radiation protection, and other fields where precision is a must. The sources that ESN will manufacture are readily used on a worldwide basis in teaching institutions, hospitals, nuclear power plants, and government labs, imaging centers, and other related industries. The most common example is the smoke detectors that are installed in homes, offices and other places. Each smoke detector has a certain amount of radioactive material inside as a sealed source. The radioactivity levels are very small and harmless to the living beings. ESN will produce sealed sources with a small amount of radioactivity inside.

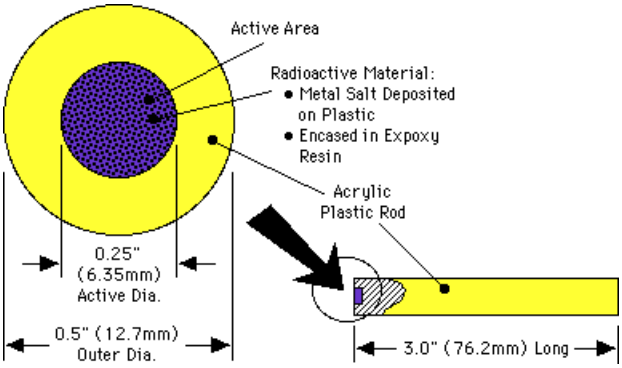
Below are a few illustrations as to how a typical sealed source looks like and its dimensions:



Alpha Spectral Source



Large Area Source



Rod Source

ESN will be primarily involved in the manufacture and production of standardized radioactive sealed calibration sources covering alpha, beta, gamma, and X-ray energy ranges and will be supplied in solid and liquid forms. The sources will be supplied as gross calibrated with an error value in the range of ±15% and precisely calibrated NIST traceable sources with error values not to exceed ±5%. All sources shipped will carry proper documentation and certificates of calibrations as needed. Secondly ESN will be producing semi custom and custom sources for those customers with special requirements. Thirdly ESN will provide in house and on-site routine instrument calibration services.

ESN will have all the necessary laboratory equipment; radioassay equipment and instruments it needs to fulfill the requirements of its key operations and customer demands. ESN will work to provide a world class superior and dedicated customer service with a march towards ISO9000 certification at the earliest.

ESN is proposed to be located at building 1002 area 23 of Nevada Test Site, just outside the main gate of NTS. The facility is about a 3700 sq. ft. in area and will be divided into two main partitions.

1) General offices, conference room, lunch room, rest rooms etc.
2) Controlled area with limited access to authorized personal only.

General area is described as an area, which has open access to all the employees working in the facility and any visitors, or clients that might come to the facility.

Controlled area is the area where only authorized employees of the company can go. **Any other person whether an employee or a visitor is strictly not allowed in this area**. Any Person other than the authorized personal needing access to the controlled area ***if the need be*** must be **escorted by the RSO or President of the company.**

Licensing Requirements
(10CFR, Part 30)

§30.18 Exempt Quantities.

(a) Except as provided in paragraphs (c) and (d) of this section, any person is exempt from the requirements for a license set forth in section 81 of the Act and from the regulations in Parts 30-34 of this chapter to the extent that such person receives, possesses, uses, transfers, owns, or acquires byproduct material in individual quantities each of which does not exceed the applicable quantity set forth in §30.71, Schedule B.

(b) Any person who possesses byproduct material received or acquired prior to October 22, 1970 under the general license then provided in §31.4 of this chapter is exempt from the requirements for a license set forth in section 81 Of the Act and from the regulations in Parts 30-34 of this chapter to the extent that such person possesses, uses, transfers or owns such byproduct material.

(c) This section does not authorize the production, packaging, repackaging, or import of byproduct material for purposes of commercial distribution, or the incorporation of byproduct material into products intended for commercial distribution.

(d) No person may, for purposes of commercial distribution import or transfer byproduct material in the individual quantities set forth in §30.71 Schedule B, knowing or having reason to believe that such quantities of byproduct material will be transferred to persons exempt under this section or equivalent regulations of an Agreement State, except in accordance with a license issued under §32.18 of this chapter, which license states that the byproduct material may be transferred by the license to persons exempt under this section or the equivalent regulations of an Agreement State.*

§30.71 Schedule B

Radioisotope	Qty. microcuries	Radioisotope	Qty. microcuries	Radioisotope	Qty. microcuries
Antimony 122 (Sb 122)	100	Hydrogen 3 (H 3)	1,000	Potassium 42 (K 42)	10
Antimony 124 (Sb 124) …	10	indium 113m (In 113m) ..	100	Praseodymium 142 (Pr 142)	100
Antimony 125 (5b 125)	10	Indium114m(ln114m)	10	Praseodymium 143 (Pr 143)	100
Arsenic 73 (As 73)	100	Indium115m(ln115m)	100	**Promethium 147 (Pm 147)**	10
Arsenic 74 (As 74)	10	Indium115(ln115)	10	Promethium 149 (Pm 149)	10
Arsenic 76 (As 76)	10	lodineI25(1125)	1	Rhenium 186 (Re 186)	100
Arsenic 77(As 77)	100	Iodine 126 (I 126)	1	Rheniurn 188 (Re 188)	100
Barium131(Ba131)	10	**Iodine 129 (1129)**	0.1	Rhodium 103m (Rh 103m)	100

Barium 133 (Ba 133)	10	**Iodine 131 (1131)**	1	Rhodium 105 (Rh 105)	100
Barium 140(Ba140)	10	lodlne132(1132)	10	Rubidium 86 (Rb 86)	10
Bismuth 210 (Bi 210)	1	Iodine 133 (I 13)	1	Rubidium 87 (Rb 87)	10
Bromine 82 (Br 82)	10	lodine134(1134)	10	Ruthenium 97 (Ru 97)	10
Cadmium 109 (Cd 109)	10	lodine135(1135)	10	Ruthenium 103 (Ru 103)	10
Cadmium 11 Sm (Cd 11 Sm)	10	Iridium192(lr192)	10	Ruthenium 105 (Ru 105)	10
Cadmium 115 (Cd 115)	100	Iridium 194(lr194)	100	Ruthenium 106 (Ru 106)	1
Calcium 45 (Ca 45)	10	**Iron 55 (Fe 55)**	100	Samarium 151 (Sm 151)	10
Calcium 47 (Ca 7)	10	Iron 59 (Fe 59)	10	5amarium 153 (Sm 153)	100
Carbon 14 (C 14)	100	Krypton 85 (Kr 85)	100	Scandium 46 (Sc 46)	10
Cerium141(Ce141)	100	Krypton 87 (Kr 87)	10	Scandium 47 (Sc 47)	100
Cerium 143 (Ce 143)	100	Lanthanum 140 (La 140)	10	Scandium 48 (Sc 48)	10
Cesium 131 (Cs 131)	1,000	Lutetium 177 (Lu 177)	100	Selenium 75 (Se 75)	10
Cesium 134m (Cs 134m)	100	Manganese 52 (Mn 52)	10	Silicon31(Si31)	100
Cesium134(Cs134)	1	**Manganese 54 (Mn 54)**	10	Silver 105 (Ag 105)	10
Cesium 135 (Cs 135)	10	Manganese 56 (Mn 56)	10	Silver 110m(Ag110m)	1
Cesium 136(Cs136)	10	Mercury 197m Hg 197m)	100	Silver 111 (Ag 111)	100
Cesium 137 (Cs 137) .....,	10	Mercury 197 (Hg 197)	100	Sodium 24 (Na 24)	10
Chlorine 36 (0 36)	10	Mercury 203 (Hg 203)	10	Strontium 85 (Sr 85)	10
Chlorine 38 (CI 38)	10	Molybdenum 99 (Mo 99)	100	Strontium 89 (Sr 89)	1
Chromium 51 (Cr 51)	1,000	Neodymium 147 (Nd 147)	100	**5trontium 90 (5r 90)**	0.1
Cobalt S8m (Co 58m)..	10	Neodymium 149 (Nd 149)	100	Strontium 91 (Sr91)	10
Cobalt 58 (Co 58)	10	Nickel 59 (Ni 59)	100	Strontium 92 (Sr 92)	10
Cobalt 60 (Co 60)	1	Nickel 63 (Ni 63)	10	5ulphur 35 (5 35)	100
Copper 64 (Cu 64)	100	Nickel 65 (NI 65)	100	Tantalum 182 (Ta 182)	10
Dysprosium 165 (Dy 165)	10	Niobium 93m (Nb 93m)	10	Technetium 96 (Tc 96)	10
Dysprosium 166 (Dy 166)	100	Niobium 95 (Nb 95)	10	Technetium 97m (Tc 97m)	100
Erbium 169 (Er 169)	100	Niobium 97 (Nb 97)	10	Technetium 97 (Tc 97)	100
Erbium 171 (Er171)	100	Osmium 185 (Os 185)	10	Technetium 99m (Tc 99m)	100
Europium 15213 yr (Eu 152, 13 yr) .	1	Osmium 191m (Os 191m)	100	Technetium 99 (Tc 99)	10
Europium 154 (Eu 154)	1	Osmium 191 (Os 191)	100	Tellurium 125m (Te 125m)	10
Europium 155 (Eu 155)	10	Osmium 193 (Os 193)	100	Tellurium 127m (Te 127m)	10
Fluorine18(F18).....	1,000	Palladium 103 (Pd 103)	100	Telluriun 127 (Te 127)	100
Gadolinium 153 (Gd 153)	10	Palladium 109 (Pd 109)	100	Telluriun 129m (Te 129m)	10
Gadolinium 159 (Gd 159)	100	**Phosphorus 32 (P 32)**	10	Tellurium 129 (Te 129)	100
Gallium 72 (Ga 72)	10	Platinum 191 (Pt 191)	100	Telluriun 131m (Te 131m)	10
Germanium 71 (Ge 71)	100	Platinum 193m (Pt 193m)	100	Tellurium 132 (Te 132)	10
Gold 198 (Au 198)	100	Platinum 193 (Pt 193)	100	Terbium 160 (Tb 160)	10
Gold 199 (Au 199)	100	Platinum 197m (Pt 197m)	100	Thallium 200 (TI 200)	100
Hafnium 181 (Hf181)	0.1	Platinum 197 (Pt 197)	100	Thallium 201 (TI 201)	100
Holmium 166 (Ho 166)	100	**Polonium 210 (Po210)**	0.1	Thallium 202 (TI 202)	100

Thallium 204 (Tl 204) 10
Thulium 170(Tm 170) 10
Thulium171(Tm171) 10
Tin 113 (Sn 113) 10
Tin125(Sn12S)..... 10
Tungsten 181 (W 181) 10
Tungsten 185 (W 185) 10
Tungsten 187 (W 187) 100
Vanadium 48 (V 48) 10
Xenon 131m (Xe 131m) 1.000
Xenon 133 (Xe 133) 100
Xenon 135 (Xe 135) 100
Ytterbium 175 (Yb 175) 100
Yttrium 90 (Y 90) 10
Yttrium 91 (Y91) 10
Yttrium 92 (Y 92) 100
Yttrium 93 (Y 93) 100
Zinc 65 (Zn 65) 10
Zinc 69m (Zn 69m) 100
Zinc 69 (Zn 69) 1,000
Zirconium 93 (Zr 93) 10
Zirconium 95 (Zr 95) 10
Zirconium 97 (Zr 97) 10
Any byproduct material not listed above other than alpha emitting byproduct material ....

Note No more than 10 exempt quantities set forth in §30.71, 5chedule B of this chapter shall be *sold or transferred in any single transaction For purposes* of *this requirement, an individual exempt quantity may* be *composed of one or more of the exempt quantities in §3071, Schedule B, provided that the sum of such fractions shall not exceed uni0/*

Byproduct material not listed in 30.71, Schedule B above available for distribution from ESN *Bismuth 207 (Bi 207) 0* 1*Yttrium* 88 *(Y* 88) *0* 1

Naturally occurring or accelerator produced radioactive material (NARMJ available for distribution from ESN. Inc' Cerium 139 *(Ce* 139) *0.1*
Cobalt 57 (Co 57) 100
lead 210 (Pb 210) 0.1
Protactinium 231 *(Pa 231)0.1*
Sodium 22 (Na 22) 10
Tellurium 123m (Te 123m)0 1

Bold denotes Radionuclide which are maintained in stock and are normally available *Italics* denote Radionuclide which are not maintained in stock but may be procured upon request

The following is a list of radioisotopes that can or will be stored at the facility in the maximum amounts listed:

Americium-241	1000 microcuries
Barium-133	1000 microcuries
Bismuth-210	100 microcuries
Cadmium-109	1000microcuries
Cesium-137	1000 microcuries
Cobalt-57	1000 microcuries
Cobalt-60	1000 microcuries
Europium-152	1000 microcuries
Iodine-129	100 microcuries
Iodine-131	1000 microcuries

Iron-55	1000 microcuries
Lead-210	100 microcuries
Manganese-54	1000 microcuries
Plutonium-239	100 microcuries
Polonium-210	100 microcuries
Thallium-204	1000 microcuries
Tin-113m	1000 microcuries
Radium-228	100 microcuries
Sodium-22	1000 microcuries
Thorium-228	100 microcuries
Yttrium-88	1000 microcuries
Zinc-65	1000 microcuries

Grand total of between 12-15 millicuries (12000-15000 microcuries) of all the isotopes combined will be stored at the facility at any given time.

All the isotopes purchased will be in either powder or liquid form. All of the materials will be handled under discrete supervision of trained personnel using all the necessary precautions, clothing's, and protection. No isotope will be purchased in gaseous form.

Proper laboratory hoods with vents leading to a HEPA filter trap along with –ve pressure will be used for any radioactive material handling. All personnel working directly with the radioactive materials will be properly trained via films, books, papers, videos and practical instructions before being authorized to work in the controlled area. No authorized person can work in the lab without the presence of RSO or company president or other persons authorized and listed on the Radioactive Material Handling License. EPA rules and regulations consider Radioactive Source Manufacturing Laboratories as small labs and are therefore exempt from their emission calculation requirements. The controlled area will have only one sink which along with an emergency shower will be connected to an above ground collection sump. The sump will be constantly monitored by the RSO and when full will be properly analyzed and dried to a solid waste and will be dumped as radioactive waste per federal requirements, by a designated licensed radioactive waste transportation and disposal company. All the personals working inside the controlled area will have to cross a threshold from the general area in order to enter the controlled area. Before crossing this threshold they will have to change their shoes to the one pair issued per authorized user inside the lab. They must use a disposable lab coat properly worn and buttoned to protect their regular clothing. They must at all time inside the facility wear a film badge and a dosimeter. Inside the controlled area they must also use a personal air flow meter to keep track of the air they breath inside the controlled area. All the badges, finger rings will be professionally analyzed and will be done via a licensed outside vendor. Dosimeters and air flow meters will be regularly monitored and their records will be permanently kept.
Facility will have background meters installed all over to make sure that no person is unnecessarily exposed to radiation. Whole body counter and portable meters will be kept, and every leaving the controlled area must check him for any contamination that

might be present. If detected the RSO will be informed and proper measures will be implemented immediately before the person is allowed back into the general area. Every person entering the building before leaving must carefully monitor himself using a whole body monitor and/or portable meter to be sure of not carrying any sort of contamination outside. RSO will on daily basis monitor all areas in the controlled area for any loose contamination and will log the proper steps taken in this regard.

The facility will operate under a State of Nevada Radiological Material Handling License.

The operation of facility from the beginning to production can be divided into the following categories.

1) Acquisition of lease for the building from NTSDC with DOE/Bechtel approval.
2) Engineering planning and modification of the building for code compliance and regulatory compliance.
3) Radioactive material handling license from the State of Nevada.
4) Facility approval and laboratory and production area completion.
5) Instrumentation and personal hiring and training.
6) Trial production and joining NIST calibration participation program.
7) Normal production.

These goals are to be achieved within 90-120 days from the date of this letter.

Please refer to the attached business plan. Statement of objectives for in depth look at the activities associated with the business proposed by ESN. Please feel free to contact me at 702-275-1948 if you have any questions.

Thank You.

Sincerely,

Masood A. Inayat
President & CEO
ESN
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APPENDIX B

Comment Response Document for October 1999 Draft Environmental Assessment The Nevada Test Site Development Corporation's Desert Rock Sky Park at the Nevada Test Site

During the public comment period, comments were received from several state of Nevada agencies. The comments are addressed in this response document.

Comment 1. *We would request that the NTS follow Special Use Air Space recommendations as contained in the Nevada Statewide Airport Systems Plan (NASP) should changes in air operations or usage of the Desert Rock Sky Park occur.*

Response: Comment noted. The above recommendation has been incorporated into the Air Space discussion on page16 of the Final EA.

Comment 2: *All waters of the state belong to the public and may be appropriated for beneficial use pursuant to the provisions of Chapter 533 and 534 of the Nevada Revised Statutes and not otherwise. Use of water to support the proposed operations on the test site must be consistent with valid permits to appropriate water.*

Response: All use of water to support activities proposed in the EA would be in accordance with permits obtained in accordance with the applicable provisions of NRS Chapters 533 and 534. The text on page 40 and 47 of the Final EA has been clarified to reflect this comment.

Comment 3: *Please implement all measures necessary to avoid the introduction and/or spread of invasive or noxious weed species.*

Response: Measures to avoid the introduction and spread of noxious weeds, as recommended by the United States Forest Service in Prevention Guide for Noxious Weeds "Road Maintenance and Construction and Heavy Equipment Use," would be implemented at the DRSP. The text of the Final EA on page 59 has been revised to reflect this mitigation measure.

Comment 4: *(W)e are concerned about issues regarding the NTS and Yucca Mountain that may result associated effects and impacts to the Desert Rock Sky Park.*

Response: DOE acknowledges your concerns. DOE/NV believes if best resource management practices are followed, all on-going and future activities, including both government and private, can be accommodated at the NTS without any adverse impacts.

Comment 5: *Please provide further, detailed, information re: what businesses are currently being considered for location at the DRSP.*